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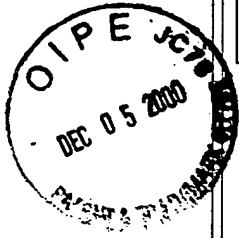
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By: Kim M. Goplen



#22

PATENT
Attorney Docket No. 17663J-004500
Client Ref. 462-96-004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

KELLY EUGENE DILLARD et al.

Application No.: 08/861,989

Filed: May 22, 1997

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Examiner: Y. Retta

Group Art Unit: 2764

**DECLARATION OF KELLY DILLARD,
DAVID GODDARD AND
DAVID LYNN SMITH**

Box CPA

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

I, Kelly Dillard of Olathe, Kansas, David Goddard of Overland Park, Kansas and David Lynn Smith of Olathe, Kansas declare:

1. In [REDACTED], we actually reduced the invention as claimed in claims 3-24 to practice by conducting a proof of concept demonstration of the invention using the code/data files attached as Exhibits A, B and C to this Declaration and to the Supplemental Declaration of Dillard and Goddard dated July 26, 2000.

2. Exhibits A, B and C contain a partial source code listing and a Windows directory listing of code useful for: encrypting software data as a function of a unique software key of a receiving electronic unit and for decrypting, using the unique software key, that encrypted software data uploaded to said electronic unit as is described in claims 13-20 and 24 of the present application.

3. Exhibits A, B and C contain a partial source code listing and a Windows directory listing of code useful for: applying a unique software key to each of the one or more receiving electronic units, encrypting software code/data as a function of a single software key, transmitting the encrypted software code/data from the transmitting electronic unit over the

communication link to the one or more receiving electronic units and decrypting the transmitted, encrypted software code/data at the one or more receiving electronic units according to the single software key used to encrypt the software code/data and the unique software key as presently claimed in claims 3-12 and 21 and 23.

The undersigned further declares that all statements made herein are of his own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent thereon.

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SE 5005456 v1

```

/*+module definition*****
*****
**
** Copyright (c) AlliedSignal Inc.
**
**
** Name          : CRYPTDB
**
** Description : This module is a very crude attempt to encrypt the dat
abase
**
**               file used by KLX100.EXE. The encryption has a cumulat
ive
**
**               randomizing effect on the output data, but is of cours
e
**
**               not bullet-proof from super-sleuth crypt experts.
**
** Global Procedures:
** Name                                     Type      Abstract
** ----                                     -
**
** Header for Code Management Software
**
**
*****-*/
#include <stdio.h>
#include <stdlib.h>
#include <io.h>
#include <stdarg.h>
#define FALSE 0;
#define TRUE 1;
#define MIDX_135      0x80          /* master index location for KL
X 135 */
#define MIDX_90       0x42          /* master index location for KL
N 90 */
#define MIDX_RS_135   14            /* 14 bytes per index entry */
#define MIDX_RS_90    3            /* 3 bytes per index entry for
90 */
#define TAG_SIZE      162          /* 162 total bytes tagged on en
d */
#define KLN90_TYPE 1
#define OTHER_TYPE 2

typedef unsigned char BYTE;

/* KLN 90 database modified memory structure */
typedef struct

```

```

/* Compute table of CRC's */
crc_32_tab[0] = 0x00000000L;
for (i = 1; i < 256; i++)
{
    c = 0;
    for (k = i | 256; k != 1; k >>= 1)
    {
        c = c & 1 ? (c >> 1) ^ e : c >> 1;
        if (k & 1)
            c ^= e;
    }
    crc_32_tab[i] = c;
}

/*-----*/
/* compute a CRC for a given byte stream
*/
/*-----*/
unsigned long get_crc( void *buffer, register int length )
{
    register unsigned long crcval = 0xffffffffL;
    register BYTE *b = buffer;
    while (length--)
        crcval = crc_32_tab[((BYTE) crcval ^ (*b++)) & 0xff] ^ (crcval
>> 8);
    return ~crcval;
}

/*-----*/
/*-----*/
/* update a running CRC with a single byte
*/
/*-----*/
/*-----*/
void update_crc( BYTE c, unsigned long *crc )
{
    *crc = crc_32_tab[((BYTE)*crc ^ c) & 0xff] ^ (*crc >> 8);
}

```

```

/*+module definition*****
*****
**
** Copyright (c) AlliedSignal Inc. █████
**
**
** Name          : UNCRYPT
**
** Description : This module is an "antidote" for a database file which
has
                been encrypted by CRYPTDB.EXE.
**
** Global Procedures:
** Name                      Type      Abstract
** ----                      -
**
** Header for Code Management Software
**
*****
****-*/
#include <stdio.h>
#include <stdlib.h>
#include <io.h>
#define TAG_SIZE 162

typedef unsigned char BYTE;

void gen_crc_tab( void );
unsigned long get_crc( void *buffer, register int length );
void update_crc( BYTE c, unsigned long *crc );

unsigned long crc_32_tab[256];          /* 32-bit CRC table */

void main( void )
{
    FILE *infp;
    FILE *outfp;
    unsigned long lCRC32;
    long int i, llen;
    BYTE b, cInByte;
    char infname[80];
    char outfname[80];
    long int      db_stamped_key;          /* database key read fr
om file */

    do

```

```

for (i = 0; i < sizeof(p)/sizeof(int); i++)
    e |= 1L << (31 - p[i]);

/* Compute table of CRC's */
crc_32_tab[0] = 0x00000000L;
for (i = 1; i < 256; i++)
{
    c = 0;
    for (k = i | 256; k != 1; k >>= 1)
    {
        c = c & 1 ? (c >> 1) ^ e : c >> 1;
        if (k & 1)
            c ^= e;
    }
    crc_32_tab[i] = c;
}

/*-----
-----*/
/* compute a CRC for a given byte stream
*/
/*-----
-----*/
unsigned long get_crc( void *buffer, register int length )
{
    register unsigned long crcval = 0xffffffffL;
    register BYTE *b = buffer;
    while (length--)
        crcval = crc_32_tab[((BYTE) crcval ^ (*b++)) & 0xff] ^ (crcval
>> 8);
    return ~crcval;
}

/*-----
-----*/
/* update a running CRC with a single byte
*/
/*-----
-----*/
void update_crc( BYTE c, unsigned long *crc )
{
    *crc = crc_32_tab[((BYTE)*crc ^ c) & 0xff] ^ (*crc >> 8);
}

```

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Name	Modified	Size	Ratio	Packed	Path
Cryptdb.c	[REDACTED] 1:11 PM	14,581	68%	4,686	
Uncrypt.c	[REDACTED] 10:45 AM	5,451	62%	2,048	
2 file(s)		20,032	66%	6,734	